



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,264	06/30/2003	Sandrine Decoster	239284US0	1398

22850 7590 02/28/2008
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

ARNOLD, ERNST V

ART UNIT	PAPER NUMBER
----------	--------------

1616

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

02/28/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/608,264	Applicant(s) DECOSTER ET AL.	
	Examiner ERNST V. ARNOLD	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 34-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/16/07 has been entered.

The restriction requirement filed on 06/28/06 remains in force. Claims 34-36 have been withdrawn from consideration as being drawn to non-elected subject matter. Claims 1-33 are under examination as they read on the elected subject matter. Applicant further elected quaternium-80, cetyltrimethylammonium chloride, polyquaternium-10, polyquaternium-44 and hydroxypropylcellulose as components in the composition.

Terminal Disclaimer

The terminal disclaimer filed on 11/16/07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of copending application 10/606,786 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Withdrawn rejections:

Applicant's amendments and arguments filed [insert date] are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below is herein withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-33 remain/are rejected under 35 U.S.C. 103(a) as being unpatentable over Janchitraponvej et al. (US 5,556,615) in view of Jahedshoar et al. (WO 01/28506) and Dupuis (US 6,214,326) and Jacquet et al. (US 4,390,522).

Please note that the Examiner is relying on WO 01/28506 for the rejection and using the English language equivalent US 6,602,494 for translation.

Applicant claims a composition comprising: water; at least one silicone comprising ammonium groups; at least one cationic surfactant; at least two different cationic polymers; and at least one nonionic and nonassociative thickening polymer wherein quaternium-80, cetyltrimethylammonium chloride, polyquaternium-10, polyquaternium-44 and hydroxypropylcellulose are components in the composition wherein at least one of the cationic polymers is a cationic polysaccharide or a quaternary polymer of vinylpyrrolidone and of vinylimidazole.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Janchitraponvej et al. teach hair conditioning compositions for treating hair comprising a 0.1% to 5% silicone compound such as Quaternium 80, and provide an example with a silicone compound, 1.5% quaternary ammonium compound (a cationic surfactant), nonionic surfactant, alkylene glycols, 1.15% thickener (hydroxyethylcellulose), cyclomethicone (additional conditioner), protein-based conditioner, coupling surfactant, fragrance and water (Abstract; column 15, example 5 and claims 1, 8 and 9). Janchitraponvej et al. teach quaternary ammonium compounds for inclusion in the composition (Column 12, lines 25-59) and nonionic surfactants such as polyoxyethylene (20) oleyl ether and N-alkylated-2-pyrrolidones (Column 13, lines 46-67). Janchitraponvej et al. teach quaternary ammonium compounds having one or two long chain alkyl groups containing from 8 to about 18 carbon atoms and the remaining two to three substitutes of the quaternary nitrogen of the quaternary

Art Unit: 1616

ammonium compound can be short chain alkyl such as methyl and provide a number of examples of cetyl ammonium chlorides (Column 12, lines 25-59). Janchitraponvej et al. teach that an oil-soluble water dispersible quaternary ammonium compound either alone or in combination with a water-soluble quaternary ammonium compound can be used in the composition (Column 12, lines 40-44). Janchitraponvej et al. teach the addition of an optional nonionic thickener such as hydroxypropylcellulose, guar gum, and gum Arabic, for example, at 0% to about 3% by weight (Column 14, lines 1-10). Janchitraponvej et al. teach that the hair is rinsed with water after contacting with the conditioning composition (Claims 14 and 15).

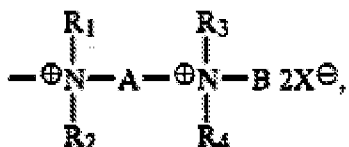
Jahedshoar et al. teaches cetyltrimethylammonium chloride, polyquaternium-10 and polyquaternium-44 in hair conditioner compositions (Column 10, examples 1 and 2 and Column 11, example 3 and 6). Jahedshoar et al. also teaches Quaternium 80 as a suitable silicone polymer with two terminal quaternary ammonium groups for use in the composition (Column 8, lines 11-37). Jahedshoar et al. teach cetyltrimethylammonium chloride as a cationic surfactant (Column 4, lines 12-28). Jahedshoar et al. teach cationic polymers for use in the composition including pyridinium and imidazolium or quaternary pyrrolidones, copolymers of polyvinylpyrrolidone, for example (Column 5, line 10 through column 8, line 37).

Dupuis teaches cosmetic compositions for treating keratinous material containing cationic polymers and acrylic terpolymers and specifically point out quaternized vinylimidazole and vinylpyrrolidone and in claim 11 point out cationic polysaccharides (Abstract and claim 11). Dupuis teaches that the thickening and/or gelling polymers

Art Unit: 1616

combined with cationic polymers produces cosmetic formulations which are not pasty or greasy and which give hair good properties of softness, feel and easy disentangling (Column 1, lines 36-44). The thickening and/or gelling polymers are terpolymers with a) methacrylic acid or acrylic acid; b) methacrylates, acrylates such as methyl, ethyl and butyl acrylate, and nonionic surfactants, and c) nonionic urethane monomer (Column 1, line 59 bridging Column 2, lines 63). Dupuis teaches cationic polymers of silicone, polyamines, polyaminoamides and quaternary polyammonium types as known products (Column 3, lines 52-55). Dupuis teaches quaternized vinyl pyrrolidone dialkylaminoalkyl acrylate or methacrylate copolymers, cellulose derivatives containing quaternary ammonium groups, dimethyldiallylammonium salts of hydroxypropylcellulose, cationic polysaccharides and in particular guar gums, polymers consisting of piperazinyl units, water soluble polyaminoamides, methyldiallylammonium or dimethyldiallyl-ammonium cyclopolymers, polyquaternary ammonium polymers of formula VIII found in column 10, lines 25-30, homopolymers or copolymers derived from acrylic or methacrylic acid, quaternary vinylpyrrolidone and vinyl-imidazole polymers, polyamines, methacryloyloxyethyltrimethylammonium chloride crosslinked polymers, condensates of polyamines and epichlorohydrin, and chitin derivatives, for example (Column 3, line 56 through column 12, line 20 and claims 1 and 11). Dupuis teaches that when the composition is a leave-in type it comprises one or more of quaternized or non-quaternized vinylpyrrolidone/dialkylaminoalkyl acrylate or methacrylate copolymers or quaternary vinylpyrrolidone or vinylimidazole polymers (Claim 12). Dupuis teaches the composition as a rinse-out or leave in hair product (Claim 18).

Jacquet et al. teach the diquatery ammonium cationic polymer, which can be present from 0.1% to 5% in shampoos (Column 8, lines 45-48).



Jacquet et al. teach emulsifiers such as oleyl alcohol polyoxyethylenated with 10 to 30 moles of ethylene oxide, for example (Column 7, lines 24-27). Jacquet et al. teach nonionic detergents such as ethers of polyethoxylated fatty alcohols (Column 7, lines 65-67). Jacquet et al. teach the further addition of cosmetic resins such as polyvinylpyrrolidone and copolymers of polyvinylpyrrolidone (Column 8, lines 54-61). Jacquet et al. teach cationic detergents such as long-chain quaternary ammoniums, alkylpyridinium salts, polyether fatty amines, or imidazoline derivatives (Column 7, lines 62-64). Jacquet et al. teach lauryltrimethylammonium chloride as a cationic ammonium compound which renders obvious other alkyltrimethylammonium salts present in the composition from about 5% to about 10% by weight of the composition in total (Column 12, lines 23-25 and 49). Jacquet et al. teach the addition of perfumes, dyes, thickening agents, foam stabilizing agents and softening agents (Column 8, lines 40-44).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

1. Janchitraonvej et al. do not expressly teach the addition of cetyltrimethylammonium chloride, polyquaternium-10, and polyquaternium-44 to the hair care composition and wherein at least one of the cationic polymers is a cationic polysaccharide or a quaternary polymer of vinylpyrrolidone and of vinylimidazole.

This deficiency in Janchitraonvej is cured by the teachings of Jacquet et al., Dupois and Jahedshoar et al.

2. Janchitraonvej et al. do not expressly teach the addition of the quaternary ammonium salts of instant claim 10. This deficiency in Janchitraonvej is cured by the teachings of Jacquet et al., Dupois and Jahedshoar et al.

3. Janchitraonvej et al. do not expressly teach the addition of cationic polymers of instant claims 14-20. This deficiency in Janchitraonvej is cured by the teachings of Jacquet et al. and Dupuis.

4. Janchitraonvej et al. do not expressly teach the addition of a thickening agent comprising vinylpyrrolidone homopolymer. This deficiency in Janchitraonvej is cured by the teachings of Dupuis.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add cetyltrimethylammonium chloride, polyquaternium-10, and polyquaternium-44 or wherein at least one of the cationic polymers is a cationic

polysaccharide or a quaternary polymer of vinylpyrrolidone and of vinylimidazole to the composition Janchitraponvej et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because:1) Janchitraponvej et al. teach one of ordinary skill in the art to add other quaternary ammonium compound (column 12, lines 25-29), which embrace cetyltrimethylammonium chloride and cationic polysaccharide or a quaternary polymer of vinylpyrrolidone and of vinylimidazole, and Jahedshoar et al. teach that polyquaternium-10, and polyquaternium-44 are useful in hair conditioner compositions and Dupois and Jacquet et al. teach the other quaternary ammonium compounds and 2) "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add quaternary ammonium salt of imidazoline to the composition of Janchitraponvej et al. as suggested by Jahedshoar et al , Jacquet et al. and Dupois and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because:1) Janchitraponvej et al. teaches making new cationic compositions and 2) "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be

Art Unit: 1616

used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). The cited reference teach ammonium salts as described in detail above and, for example, Dupuis teaches quaternary vinylimidazole polymers which renders obvious the quaternary ammonium salt of imidazoline to one of ordinary skill in the art.

3. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the cationic polymers taught by Dupuis and Jacquet et al. in the composition of Janchitraonvej et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because: 1) Janchitraonvej et al. teaches making new cationic compositions and 2) “It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). It is the Examiner’s position that the polymer renders obvious the quaternary monomer.

4. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the thickening agents taught by Dupuis in the composition of Janchitraonvej et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Dupuis teaches that the thickening and/or gelling polymers combined with cationic

Art Unit: 1616

polymers produces cosmetic formulations which are not pasty or greasy and which give hair good properties of softness, feel and easy disentangling (Column 1, lines 36-44).

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976).

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Response to arguments:

Applicant asserts that that the primary reference teaches cationic polymers as conditioning agents and compositions with these cationic polymers result in hair with unfavorable characteristics. The Examiner cannot agree. Applicant has taken the teachings of the primary reference out of context. The entire passage in column 2 starting on line 40 reads (Examiner added emphasis):

Art Unit: 1616

40 The ability of cationic compounds to adsorb to or interact
with the keratinous material of the hair makes these com-
pounds desirable for improving wet hair detangling and dry
45 hair manageability. However, cationic compounds that
adsorb particularly strongly to the hair also can reduce the
elasticity, body and set of the dried hair. Therefore, although
conditioning compositions for application to freshly sham-
pooed hair are well known, new and improved conditioning
50 formulations based on cationic compounds are continually
sought.

So, not only does the primary reference teach that cationic compounds are desirable but also suggests making new and improved conditioning formulations based on cationic compounds!

Applicant asserts that the results in the 1.132 declaration filed on 2/16/07 are synergistic and not additive. The Examiner cannot agree. The results are merely a difference in degree and not in kind as argued in the last Office Action. The beneficial results support a conclusion of obviousness because, based on the teaching of the primary reference, addition of cationic compounds can improve conditioning compositions. "Expected beneficial results are evidence of obviousness of a claimed invention, just as unexpected results are evidence of unobviousness thereof." In re Gershon, 372 F.2d 535, 538, 152 USPQ 602, 604 (CCPA 1967).

Applicant's arguments and showing are not sufficient to overcome the rejections of record. The Examiner maintains the rejections.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernst V. Arnold whose telephone number is 571-272-8509. The examiner can normally be reached on M-F (6:15 am-3:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ernst V Arnold/
Examiner, Art Unit 1616

Ernst Arnold
Patent Examiner
Technology Center 1600
Art Unit 1616

Application/Control Number: 10/608,264
Art Unit: 1616

Page 14